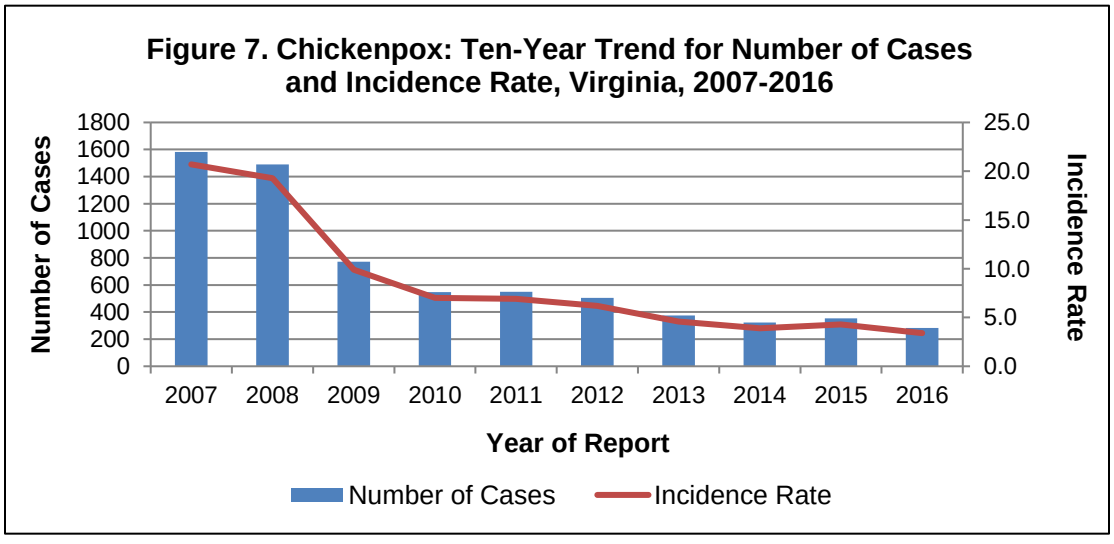
Chickenpox (Varicella)

Agent: Varicella-zoster virus (VZV)
Mode of Transmission: Person-to-person transmission by direct contact or through droplet or airborne spread of vesicular lesion fluids or respiratory secretions from an infected person.
Signs/Symptoms: Acute onset of fever and generalized, pruritic, vesicular rash typically consisting of 250-500 lesions. Successive crops of lesions appear first on the head and progress to the trunk and extremities. Lesions can appear on the scalp, armpit, and mucous membranes of the mouth, respiratory tract, and eye.
Prevention: Administration of vaccine should occur for children starting at age 12 months followed by a second dose at age 4-6 years.
Other Important Information: The disease is highly transmissible; susceptible household contacts have an 80-90% risk of becoming infected. In healthy children, acute varicella is generally mild and self-limited; however, severe complications can result from the disease, especially in adults. Herpes zoster, or shingles, occurs when latent VZV reactivates and causes recurrent disease.

Chickenpox: 2016 Data Summary	
Number of Cases:	284
5-Year Average Number of Cases:	421.2
% Change from 5-Year Average:	-33%
Incidence Rate per 100,000:	3.4

In 2016, 284 cases of varicella were reported, which represents a 33% decline from the five-year average of 421.2 cases per year (Figure 7). This decline is likely attributable to the two dose vaccine requirement for daycare and school entry adopted in 2010. Overall, the incidence rate for the state was 3.4 cases per 100,000.



The highest incidence rates occurred among the youngest age groups, with those less than one year of age having an incidence rate (36.9 cases per 100,000) over ten times the state incidence rate, followed by the 1-9 year age group with a rate of 11.5 cases per 100,000). Incidence rates generally declined with age, with 4.7 cases per 100,000 in the 10-19 year age group compared to 0.2 cases per 100,000 in the 60 year and older age group. Race information was not reported for 32% of cases. For cases with a known race, the incidence rate was highest for the "other" race population (3.4 cases per 100,000) followed by the white population (2.5 cases per 100,000) and the black population (1.3 cases per 100,000). Incidence was slightly higher in males compared to females (3.7 and 3.1 cases per 100,000, respectively).

Incidence was much higher in the northern region (6.0 cases per 100,000) when compared to other regions in the state. Incidence in the northwest region was 3.5 cases per 100,000, while incidence rates for the remaining three regions ranged from 1.3 to 2.5 cases per 100,000. Incidence by locality can be seen in the map below. Onset of illness occurred throughout the year with a slight increase (29%) during the second quarter.

In 2016, one outbreak of varicella, consisting of seven cases, was reported from a daycare setting in the northern region. A majority of the clients associated with this outbreak were less than one year of age and, therefore, not recommended to receive vaccine. Of those eligible for vaccine based on age, one of the three cases had received one dose of vaccine. This is a decrease from the four outbreaks reported in 2015.

Chickenpox Incidence Rate by Locality
Virginia, 2016